Appendix II-A

Commissioning Evaluation Criteria

Commissioning Evaluation Criteria

The Commissioning Evaluation Criteria consists of a table of elements (consisting of a reference number/letter) each with a heading, which is bolded and underlined. The evaluation criteria are the guidelines under each heading used by the field unit evaluation official (EO) to help them complete the commissioning checklist. The actual checklist is simply these headings encapsulated on 1 to 2 pages with check boxes added and can be found in Appendix II-B. There are two more columns, one that pertains to the type of office to which the criteria apply, the second is the suggested staff the EO should coordinate for that particular element. Under the Criteria Apply To column, there may be entries regarding the level of operation to which the criteria apply. For a description of these levels, refer to Section II-1.4.

LEGEND

Criteria Apply to:	
1	Level 1 Operations
2	Level 2 Operations
3	Level 3 Operations

Input Provided by:	
M/H	MIC and/or HIC
S/D	SOO and/or DOH
E	ESA
W	WCM
F/HY	Forecaster and/or Hydrologist
DA	DAPM
HM	HMT
R	Regional Headquarters
N	National Headquarters
C	CRS Focal Point

1. Successful Completion of Site Component Acceptance Test		Criteria Apply To:	Input Provided By:
NOTE: The following criteria are meant to serve as guidelines for the evaluation official (EO) when conducting the commissioning evaluation. The EO should query the office staff as often as possible to determine whether these criteria are being satisfied adequately. Significant digressions that require a work-around or commissioning note must be noted in the Remarks section of the Commissioning Report.			
1a	**Signed Acceptance Report DD250** Ensure proper installation/setup of the Console Replacement System (CRS) equipment and interface to "host" computer [computer providing scripts formatted for CRS). Verify that a copy of the system voucher (including the inventory, test results, deficiency reports, certificate of license, and CD-509's for property transactions) have been signed and all operationally significant deficiencies listed as exceptions (open items) on the signed voucher have been satisfied.		E
1b	**Major Component Verification** Verify that all components required for CRS have been delivered by the contractor (including the backup suite of equipment). Do this by reviewing the list of equipment that should be issued to the site based on the configuration and then perform a walk-through. There is no requirement to access internal subcomponents of the system. Ensure that a copy of the CRS Technical Information Package (TIP) issued by Weather Service Headquarters (WSH) has been received by the field site. Verify that Version 5.0, or later, of the CRS software has been installed.		E
1c	**Property Accounting** Verify that the appropriate property transaction request form, supplied to the region for CRS, has been signed by the regional director (RD), meteorologist-in-charge (MIC), or designee. Ensure that all major components have been bar-coded as indicated in Engineering Handbook (EHB) 13.		E

1.	Successful Completion of Site Component Acceptance Test	Criteria Apply To:	Input Provided By:
1d	**End-to-End Alignment Procedure** Perform an end-to-end alignment procedure for optimizing the transmitters prior to use with the synthetic voice (syn-voice). Use the Terminal Interface Processor to ensure proper functioning of CRS with its associated transmitters prior to using the syn-voice. This checklist will be performed with any level of operation for CRS.	1, 2, 3	E
1e	**ROAMS** Check the ROAMS feature of CRS using the ROAMS TIP. Verify that the telephones are correct for activating the ROAMS.	1, 2, 3	E
1e	**Installing Data Base Elements** Verify that the data base attributes and dictionary parameters have been installed successfully into the CRS prior to using the syn-voice. Install data base using Initial Database Utility (IDU) software. Create local pronunciation dictionary using Site User's Manual, Introductory Guidebook, and Digital Equipment Corporation (DEC) Style guide along with other dictionary aids as needed.	1, 2, 3	C
1f	**Initial Consumables** Check to see that the consumables, and the quantities listed, as described in EHB-13, Section 1.0, are on-site. If these quantities are not on-site, order them and verify receipt prior to the system commissioning.	1, 2, 3	C

2. Adequate Availability of Trained Operations and Maintenance Personnel		Criteria Apply To:	Input Provided By:
NOTE: The following criteria are meant to serve as guidelines for the EO when conducting the commissioning evaluation. The EO should query the office staff as often as possible to determine whether these criteria are being satisfied adequately. Significant digressions that require a work-around or commissioning note must be denoted in the Remarks section of the Commissioning Report.			
2a	**Initial Training/Proficiency** Verify that all members of the CRS operations staff are: • Trained on the proper use of CRS in conjunction with all transmitters that it supports and any ROAMS units that have been installed. • Knowledgeable in the access and manipulation of data bases, dictionaries, and the scheduling of CRS products. • Developing an understanding how preformatters function with the CRS. National Oceanic and Atmospheric Administration (NOAA) Weather Radio (NWR) responsible staff has been trained on basic CRS data base/dictionary/schedules. Begin developing staff proficiency by: • Practicing warnings/watches through emergency override (known as EO) and through message creation. • Practicing schedule changes on the fly (cut/paste, etc.) • Practicing basic stop/start/recovery procedures. • Operating the CRS in "practice mode" (i.e., CRS is not "on the air") and practice warnings, watches, and sending tones to the Specific Area Message Encoder (SAME) feature of CRS will be exercised both manually and with syn-voice. • Becoming familiar with CRS script formatters, specifically, AFOS Hourly Weather Roundup (HWR) and/or others (e.g., STORMI/ZIP or Air Waves). **Reminder, be sure CRS is not connected to NWR transmitters during early practice sessions.**	1, 2, 3	C, S, D, HM

2. Adequate Availability of Trained Operations and Maintenance Personnel		Criteria Apply To:	Input Provided By:
	Each person operating the CRS will be verified for proficiency in the following areas: **S** How to create a weather message, weather message parameter significance, and record a weather message. **S** Basic scheduling functions, and fundamental dictionary/pronunciation interface training. **S** How to add a word to the pronunciation dictionary, and how to change the pronunciation of a word. **S** How to add a message to a suite or paste a message into a current broadcast cycle, and how to remove a message from a broadcast cycle. **S** How long will temporary changes to the broadcast cycle last. **S** How to override the system and issue warnings in "backup live." Essentially, Chapters 1, 4, 9, 19, 20, 22, 26, and 36 of the the User's Manual need to be covered to complete this level of training. Other field office staff such as the Warning and Coordination Meteorologist (WCM), Science and Operations Officer (SOO) forecasters, etc., will have an understanding of the CRS operation through contact with the CRS focal point.		
2b	**<u>Advanced Training/Proficiency</u>** The CRS focal point is familiar with all system reboot/recovery/backup procedures and with basic: **S** Scheduling design and functionality **S** Replace functions including Message Association Table, Identical Message Replace, and Message Reference Descriptor (MRD) **S** Periodicity function **S** Interrupt messages and suite categories **S** Trigger messages **S** Screens and parameter options **S** Building scheduling screens **S** Building suites, adding/deleting messages from suites, message groups and functionality, timed suites, running suites in timed order, assigning all transmitter parameters, downloading dictionaries, and	2, 3	C, S, D, HM

2. Adequate Availability of Trained Operations and Maintenance Personnel		Criteria Apply To:	Input Provided By:
	assigning voice parameters by transmitter and by message type **S** Adding a transmitter in accordance with documented procedure. Proficiency has been developed in the following areas: **S** Sending warnings through Emergency Override, through message creation, and through backup live **S** Creating messages manually and scheduling them **S** Broadcast cycle screen - all aspects of information available there, how to get to it and what it means **S** Adding words to pronunciation dictionary and changing pronunciations of words minimally at phonetic level, ideally at phoneme interface level **S** Adding a message to a suite, pasting and cutting messages **S** Knowledge of MRD and its functionality and how it will be used and tracked on site **S** Knowledge of message attributes and parameters and their significance, how to check them during the broadcast cycle. Complete *Proficiency Checklist* after completing staff training on these advanced features.		
2c	**Electronics Staff/System Administrator Training/Proficiency** Electronic staff members are trained on diagnosing and repairing CRS equipment and the proper functioning of this equipment after repair. Electronics Technician (ET) and System Administrator staff are trained on CRS reboot/backup/recovery and maintenance procedures.	1, 2, 3	E

3. Satisfactory Performance of System Functions and Interfaces		Criteria Apply To:	Input Provided By:
NOTE: The following criteria are meant to serve as guidelines for the EO when conducting the commissioning evaluation. The EO should query the office staff as often as possible to determine whether these criteria are being satisfied adequately. Significant digressions that require a work-around or commissioning note must be denoted in the Remarks section of the Commissioning Report.			
3a	**Connection to Host Computer** When the site is ready to interface to the host system (AFOS, Advance Weather Interactive Processing System [AWIPS]), Pacific Region Operations Network [PRONET], or Alaska Region Operations Network (ARONET) for receiving official NWS products to be disseminated, switch to the CRS. If systems performing formatter functions are also installed, verify that they are installed correctly between the host system and the CRS. Document the host system used for the interface in the *CRS Site Component Commissioning Report*.	1, 2, 3	E
3b	**Legacy Console Switch** When the site is ready to switch between the legacy console in the office with CRS (A/B switch now set to CRS), the legacy console is placed on "**stand-by**." CRS now drives the transmitters and is "on-the-air" during **non-critical weather events,** i.e, no weather watches or warnings. Note the date the CRS was activated at your site. At a minimum, the site CRS can: - acquire NWS products automatically from other NWS sites for dissemination from this CRS - specify the necessary dissemination control parameters - disseminate designated hazardous weather products to appropriate external users automatically selected by CRS based on the geographic areas affected by the products.	1, 2, 3	E
3c	**CRS Primary System In Use** CRS becomes the primary system within the office and drives the transmitters during **critical and non-critical weather events,** which includes weather watches or warnings. Legacy consoles can be deactivated at this time or placed in an "emergency stand-by" status until officially decommissioned. **Note**: The legacy consoles are decommissioned when the RD signs the *CRS Site Component Commissioning Report*.	1, 2, 3	C

3. Satisfactory Performance of System Functions and Interfaces		Criteria Apply To:	Input Provided By:
3d	**Printer** Verify that the printer delivered with the CRS is functional and can produce office-generated products clearly.	1, 2, 3	E

4. Satisfactory Support of Associated NWS Forecast and Warning Services		Criteria Apply To:	Input Provided By:
NOTE: The following criteria are meant to serve as guidelines for the EO when conducting the commissioning evaluation. The EO should query the office staff as often as possible to determine whether these criteria are being satisfied adequately. Significant digressions that require a work-around or commissioning note must be denoted in the Remarks section of the Commissioning Report.			
4a	**User Outreach** User outreach with external users is completed and documented in accordance with *WSOM* Chapter C-64 and the *CRS Outreach Guide*. In general, notification messages are included in the regular broadcast. Play Station ID is in syn-voice when system is operating. Initial contact/notification has been made with emergency managers (EM) and emergency alert service (EAS) facilities through written and personal contact. Include discussion/brochures in all public contact including spotters, schools, etc. See CRS web page for more outreach information/package. Send out first press release in coordination with regional public affairs. Update EAS/EMs on status regularly. Ensure that EAS is fully aware of CRS. Reach agreement on use/non-use of syn-voice. Continue public notification/outreach as long as needed to gain acceptance. Gradually increase use of syn-voice until it becomes routine. Rigorous monitoring and adjustment of pronunciation of all words have proven quite effective. Ensure number pronunciations are clear, if not change to a clear pronunciation. If possible, encourage public feedback on scheduling. Begin inventive and user-oriented scheduling routines (such as recreational forecasts or specific-user oriented products like river flow levels played at clock-times). Maintain contact on NWR 2000 change with EAS facilities and EM. Ensure EAS knowledge and cooperation, or agreement.	1, 2, 3	D, C
4b	**Notification Message** Verify that notification messages have been issued to external users on the use of CRS to disseminate critical weather information. Ensure that notification messages are regularly broadcast to listeners indicating that NWR 2000 is coming.	1, 2, 3	D, C

4. Satisfactory Support of Associated NWS Forecast and Warning Services		Criteria Apply To:	Input Provided By:
	Note: For Commissioning Evaluation Criteria 4c through 4e, the EO will decide, in consultation with other office staff, which of the three levels is the best approach for your situation at the time of commissioning CRS. These are referred to as levels of operation. Select <u>one</u> of these three and enter N/A for the other two.		
4c	**<u>Initial CRS Operations</u>** Before operating the CRS, perform a general NWR program review for your area of responsibility. The following questions need to be answered to meet these criteria: C Where are your transmitters? C Which counties do they reach? C How many transmitters in your area reach into counties outside of your County Warning Forecast Area (CWFA)? Ensure that all NWR-responsible staff are fully versed in the site's NWR program: C Which transmitters reach which counties? C What are the county Federal Information Processing Standard (FIPS) codes? C What are the SAME codes? C What is EAS and what is its relation to NWR/CRS? Ensure that operations take into account incorporation of products generated outside the Center Weather Advisory (CWA) on local programming. Once this step is accomplished, the CRS can begin operating. CRS changes places (A/B switch flipped) with existing consoles, and CRS is now "on-the-air" most or all of the time. **Note:** Notify RH prior to first broadcast use of syn-voice. The site monitors the broadcasts being produced by the CRS locally (i.e., within the confines of the weather office, with special emphasis on listening to the dictionary pronunciation of words and the scheduling feature of CRS). Operational staff spends as much time understanding how the system works and how to overcome limitations unique to their site.	1	M, S, W, F, C

4. Satisfactory Support of Associated NWS Forecast and Warning Services		Criteria Apply To:	Input Provided By:
	CRS disseminates **all** official NWS products to the public, mostly manually digitized, except for the AFOS-generated HWR and Station ID. However, until the CRS is commissioned, legacy consoles can remain in service to support operations as another level of backup.		
4d	**Mix of Human/Syn-Voice Operations** CRS now disseminates **all** official NWS products to the public using a combination of some syn-voice (i.e., more than the two products under 4c.) and human voice for critical weather products, which can continue to be manually-digitized for broadcast. Wide use of syn-voice can be utilized by the site with the possible exception of the EAS broadcast and non-formatted products, which may continue to be issued, manually.	2	M, S, W, F
4f	**Syn-Voice Operations** CRS broadcasts all official products through syn-voice with only selective, infrequent manual recordings. During the commissioning evaluation phase, CRS is used, exclusively, without the need or use of the legacy console. CRS focal point expands on-site use of CRS scheduling capabilities to maximize programming for listeners. **Note: Before performing this level of operation, the site will notify the RH of their intention to use syn-voice on-the-air.** CRS disseminates **all** official NWS products to the public.	3	M, S, W, F, C

5. Proper Functioning of System Back-ups		Criteria Apply To:	Input Provided By:
NOTE: The following criteria are meant to serve as guidelines for the EO when conducting the commissioning evaluation. The EO should query the office staff as often as possible to determine whether these criteria are being satisfied adequately. Significant digressions that require a work-around or commissioning note must be denoted in the Remarks section of the Commissioning Report.			
5a	**CRS Primary System Backup Procedure** For any level of operation the office chooses to commission their CRS (Level 1, 2, or 3), a test of the backup console will be performed in accordance with the CRS Site Operators Manual. In addition, the site can demonstrate the "backup live" feature of CRS. The site will broadcast "live" for one forecast period to demonstrate that CRS can function without the need for any of the automated CRS components. This procedure will be conducted in such a way as to demonstrate that CRS can operate fully when the primary console is non-functional.		C, E
5b	**Backup Tapes** Verify that backup tapes of the system software, data dictionaries, American Standard Code for Information Interchange (ASCII) data base, and a bootable disk for the operating system are on-site in the event of a system malfunction requiring system reconstruction. This also applies to situations where the operating versions of these elements have in some way been corrupted. It is recommended that one set be sent to your designated regional office.		C, E
5c	**Archiving** The site can perform the following archiving functions locally: - request any archive data from the CRS - retrieve data stored on archive media - identify any data to be archived - display a list of data resident on archive media.		C

6. Adequate Documentation for Operations and Maintenance		Criteria Apply To:	Input Provided By:
NOTE: The following criteria are meant to serve as guidelines for the EO when conducting the commissioning evaluation. The EO should query the office staff as often as possible to determine whether these criteria are being satisfied adequately. Significant digressions that require a work-around or commissioning note must be denoted in the Remarks section of the Commissioning Report.			
6a	**Maintenance Documentation** The following maintenance related documents will be on-site to assist the office with their CRS maintenance responsibilities: **S** CRS TIP, Maintenance Note 52, Issuance 7-13-99 **S** NWR System Alignment Procedure (end-to-end), Maintenance Note 53, Issuance 9-17-98 **S** ROAMS TIP, Maintenance Note 54, Issuance 11-16-98 **S** CRS Site Acceptance Test Plan/Procedures, Volumes I, II, and III		E
6b	**Training Documentation** The following training documents will be on-site to assist the office with their CRS training responsibilities: **S** Jumpstart Kit, March 98		C, S
6c	**System Documentation** The following system related documents will be on-site: **S** CRS System Administrators Manual, Version 5.0 or later **S** Site Operators Manual, Version 5.0 or later		C, E
6d	**Policy Documentation** The following policy documents will be on-site relating to CRS operations: **S** NWR Program NWS Operations Manual, Chapter C-64, Issue date 12-98 **S** NWS Operations Manual, Chapter C-64, Operations Manual Letter, NWR Operator Proficiency, effective date.		M, C

6. Adequate Documentation for Operations and Maintenance		Criteria Apply To:	Input Provided By:
6e	**Outreach Documentation** The following outreach documents will be on-site relating to CRS operations: **S** NWR 2000 CRS 1998 Outreach Guide		C, D